



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,148	11/21/2003	Shiro Kawamoto	35703	2109
116	7590	09/18/2006	EXAMINER	
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			ALI, HYDER	
			ART UNIT	PAPER NUMBER
			3747	

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,148

Applicant(s)

KAWAMOTO, SHIRO

Examiner

HYDER ALI

Art Unit

3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-11, 14-16 and 20-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8-11, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5-7, 16 and 20-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objection

Regarding claim 1 the word "means" is preceded by the word(s) "for" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Haberlein et al (US 6,109,251).

As to Claim 1, Haberlein et al discloses a four stroke engine comprising: a crankcase 2; a crankshaft 5 supported for rotation within the crankcase 2; an oil reservoir 17 located within the crankcase 2; and means for vibrating (moving parts) the crankcase 2 to mist oil from the oil reservoir 17 to lubricate non-crankcase engine component, wherein the means for vibrating (moving parts) the crankcase 2 includes a vibration mechanism (moving parts) coupled to a portion of the crankcase 2. See column 2, lines 65-67; and column 3; line 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11,14 and 15 are rejected under 35 U.S.C. 103(a) as being anticipated by Meyer (US 6,745,742).

Meyer discloses in the splash oiling system, oil is whipped up by the crankshaft and connecting rods rotating around and dipping into the oil troughs. Oil is splashed everywhere inside the engine, and trickles down into oil collection holes and thus lubricates the bearing surfaces. See column 1, lines40-45 and FIGS. 2A-2D.

Clearance area in the crankcase, which is less than 10mm and/or 1.5 mm, is not mention in Meyer patent.

It would have been obvious to minimize the clearance between the crankshaft and the crankcase to 10mm and/or 1.5mm in order to splash oil against a counterweight in the engine.

3. Claims 11,14 and 15 are rejected under 35 U.S.C. 103(a) as being anticipated by Wu (US 6,098,577).

Wu discloses during the rotating movement of the crankshaft 30, when reaching a lowermost position, the counterweight 50 dip into the oil 13. When the counterweight 50 is submerged in the oil 13 a surface ripple in the oil reservoir splashes against a counterweight in the engine.

Art Unit: 3747

Clearance area in the crankcase, which is less than 10mm and/or 1.5 mm, is not mention in Wu patent.

It would have been obvious to minimize the clearance between the crankshaft and the crankcase to 10mm and/or 1.5mm in order to splash oil against a counterweight in the engine.

4. Claims 11,14 and 15 are rejected under 35 U.S.C. 103(a) as being anticipated by Tamba et al (US 4,762,098).

Tamba et al discloses lubricating oil in the bottom of the crank chamber 25 has been stirred by the crank arm 29 resulting in the crank chamber 25 filled with lubricating oil mist.

Clearance area in the crankcase, which is less than 10mm and/or 1.5 mm, is not mention in Tamba et al patent.

It would have been obvious to minimize the clearance between the crankshaft and the crankcase to 10mm and/or 1.5mm in order to splash oil against a crank arm in the engine.

5. Claims 8-10,11,14,15 are rejected under 35 U.S.C. 103(a) as being anticipated by Haberlein et al (US 6,109,251).

Haberlein et al has been described above.

Clearance area in the crankcase, which is less than 10mm and/or 1.5 mm, is not mention in Haberlein et al patent.

Art Unit: 3747

It would have been obvious to minimize the clearance between the crankshaft and the crankcase to 10mm and/or 1.5mm in order to splash oil against a counterweight in the engine.

Allowable Subject Matter

Claims 2,3,5-7,16,20-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-3,5-11,14-16 and 20-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HYDER ALI whose telephone number is (571) 272-4836. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Kirk Cronin can be reached on (571) 272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hyder Ali

ha